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ABSTRACT

This report presents a literature review that was initiated to provide Virginia school districts with information about attracting and retaining quality teachers. The review addresses what school divisions are doing to retain teachers in the first 5 years; teachers' perceptions regarding school division retention strategies; and reasons teachers give for leaving their divisions or the profession during their first 5 years of teaching. The report provides data on: historical context; the nature of the shortage (projected shortages, distribution problems, and Virginia's response to the teacher shortage); recruitment of quality teachers (policies, teacher preparation, standards, teacher testing, the teaching pool, alternate routes to certification, and other barriers); and retaining quality teachers (teacher attrition, professional development and mentorship, and recognizing excellence in teaching). It concludes that Virginia hired approximately 6,000 new teachers in 1999-00 and anticipates that this number will increase with each year in the coming decade. It is evident that no one solution will resolve the anticipated teacher shortage and no one agency can ensure teacher quality. Providing teachers to Virginia's public schools will require systemic reform and intensive collaboration between state policymakers, higher education institutions, and public schools. An annotated bibliography is attached. (Contains 66 references.) (SM)

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RECRUITING AND RETAINING TEACHERS: A REVIEW OF THE LITERATURE

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RECRUITING AND RETAINING TEACHERS: A REVIEW OF THE LITERATURE

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December 1999

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Executive Summary

What office is there which involves more responsibility,
which requires more qualifications, and which ought,
therefore, to be more honourable than that of teaching?
Harriet Martineau

The National Center for Education Statistics (1998) predicts that by 2008 approximately 2.4 million teachers will be needed in this country, at a rate of over 200,000 per year. Several factors contribute to this prediction. First, due to increased birth rates and immigration (Darling-Hammond, 1999), student enrollment is expected to pass 54 million by that time---its highest in the history of this country (NCES, 1998). Second, more than 33% of the current teaching force is age 50 or older (Recruiting New Teachers, 1998) and likely to retire within the next decade. Third, recommendations, if not regulations, reducing the number of students in each classroom mean that more teachers will be needed for these smaller classes (NASBE, 1998). And, lastly, teachers, both novice and experienced, are leaving the profession (Darling-Hammond, 1999; Delgado, 1999; Stallsmith, 1999; Snider, 1999).

Much of the research on teacher retention has been piecemeal, and few studies have used a comprehensive model or framework of attrition and retention. Available research results indicate that teachers' career decisions are related to a wide variety of variables. Ingersoll (1998) concludes that it is a mistake, however, to assume that hiring difficulties and out-of-field teaching are the result of teacher shortages in the conventional sense of the availability of candidates willing to enter teaching. The demand for new teachers comes about primarily because teachers choose to move from or leave their jobs at far higher rates than do those in

many other occupations (NCES, 1998). In the fifth Phi Delta Kappa poll of teachers' attitudes toward the public schools, findings revealed that more teachers today say their schools have trouble retaining teachers (Langdon, 1999).

Teaching is a complex profession, requiring many pre-requisite skills and extensive training for those who engage in it. Lanier (1999) suggests that the responsibilities of teachers have evolved from distributing facts to a present-day focus on helping children learn to use facts by developing skills for critical thinking, problem-solving, decision-making, and creating their own knowledge. Although the Standards of Learning (1995) require that Virginia teachers pay particular attention to cognitive development and knowledge acquisition, student needs often demand that teachers also assume the roles of counselor, nurse, parole officer, and caregiver (Bullard, 1998) before cognitive development can be addressed in the classroom. Teachers typically are given minimal time for the preparation and planning required for their complex responsibilities, and they are, many times, isolated from the support and knowledge of colleagues as they work with students (Holmes Group, 1986). Job requirements for teachers also include clerical and supervisory skills for dealing with non-instructional duties. Additionally, teachers must be knowledgeable about the guidelines of various state and federal programs in their school, as well as familiar with the community culture in which they teach.

The purpose of this review is to outline those factors contributing to the teacher shortage in the Commonwealth of Virginia and to identify effective strategies for recruiting and retaining quality teachers for Virginia schools. Given the importance of the teaching profession to the Commonwealth of Virginia, it is imperative that Virginians examine the current state of the profession and anticipate the need for teachers in the new millenium.

PREFACE

This is the final report of a literature review on Attracting and Retaining Teachers sponsored by The Metropolitan Educational Research Consortium (MERC). One of the major purposes of MERC is to commission and support literature reviews and research studies that will have an impact on improving the quality of instruction in schools. This literature review was initiated to provide information to school districts about the notion of attracting and retaining quality teachers.

The review addresses the following research questions:

1. What are school divisions doing to retain teachers in the first five years?
2. What are the perceptions of teachers regarding school division retention strategies?
3. What reasons do teachers give for leaving their divisions or the profession during their first five years of teaching?

The project was designed and implemented by Jill Englebright Fox, with the assistance of Janine Certo, a MERC research fellow. The report reflects findings interpreted by the authors, and does not constitute official policy or position by MERC or by Virginia Commonwealth University.

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HISTORICAL CONTEXT

The year 1957 saw the launching of the Soviet satellite, *Sputnik*, and a surge of American concern that U.S. schools were not keeping technological pace with the Russians. The result of the reforms that followed *Sputnik* in the 1950s and 1960s was that education became almost "teacher proof." Curriculum guides and school regulations were designed to eliminate most decision-making responsibilities for teachers (Bullard, 1998). The failings of this approach were described in the 1983 report of the U.S. Department of Education, A Nation at Risk, which warned that American schools were "drowning in a rising tide of mediocrity" (p. 5, 1983).

Three years later, the Carnegie Task Force on Teaching as a Profession and The Holmes Group published reports that described the professionalization of teaching as an essential ingredient in reforming American education:

> Professional work is characterized by the assumption that the job of the professional is to bring expertise and judgement to bear on the work at hand. Because their expertise and judgement is based on a degree of responsibility, the professionals enjoy a degree of autonomy. They also define the standards used to evaluate the quality of the work done, decide how to judge the quality of professionals in their field, and have a voice in deciding what program of preparation is appropriate (Carnegie Forum, p. 36).

To better prepare teachers for the responsibilities of their profession, The Holmes Group (1986) set the following goals for teacher education programs:

- to make the education of teachers more intellectually solid
- to recognize differences in teachers' knowledge, skill, and commitment in their education, certification, and work
- to create standards of entry into the profession—examinations and educational requirements—that are professionally relevant and intellectually defensible
- to connect institutions of higher education to schools
- to make schools better places for teachers to work and to learn (p. 4)

Institutional change is difficult, and the road to reform has left American schools in an interesting dilemma at the close of the 20th century. At this time, when the need for good teachers and good teaching is unprecedented, America is experiencing a shortage of qualified individuals prepared to take on the challenges of the profession. The purpose of this paper is to outline those factors contributing to the teacher shortage in the Commonwealth of Virginia and to identify effective strategies for recruiting and retaining quality teachers for Virginia schools.

THE NATURE OF THE SHORTAGE

Projected Shortages

The National Center for Education Statistics (1998) predicts that by 2008 approximately 2.4 million teachers will be needed in this country, at a rate of over 200,000 per year (Latham, Gitomer, & Ziomek, 1999). Several factors contribute to this prediction. First, because of increased birth rates and immigration (Darling-Hammond, 1999), student enrollment is expected to pass 54 million by 2008 to be at its highest in the history of this country (Merrow, 1999; NCES, 1998). Second, more than 33% of the current teaching force is age 50 or older (Recruiting New Teachers, 1998) and likely to retire within the next decade (Merrow, 1999). Third, recommendations, if not regulations, reducing the number of students in each classroom mean that more teachers will be needed for these smaller classes (Merrow, 1999: NASBE, 1998). And, lastly, teachers, both novice and experienced, are leaving the profession (Darling-Hammond, 1999; Delgado, 1999; Stallsmith, 1999, Snider, 1999).

Distribution Problems

Together, these factors have contributed to a national teacher shortage. The distribution of this shortage is not uniform, but is being felt most intensely in particular fields and particular school divisions, and among particular groups. Researchers (NASBE, 1998; Darling-Hammond, 1999), in fact, assert that America is not so much suffering from a teacher shortage, but from an uneven distribution of teachers among subject areas and school divisions. Darling-Hammond (1999) states that the United States produces many more new teachers each year than its schools actually hire. "Only about 60% of newly prepared teachers enter teaching jobs after they graduate, and many report that they cannot find jobs" (p. 5). Merrow (1999) explains that some of these teacher education graduates never intended to become teachers. They see their training as simply a safety net if other career options do not work out. Other graduates may never enter the classroom because they were unable to find positions in a specific locale and so have taken other work in the preferred geographic area. NASBE (1998) suggests that the distribution problem may be traced to the surplus of teachers being prepared in some fields, while schools are in desperate need for specialists in others.

The distribution of teacher education majors among areas of specialization is a key issue in the teacher shortage. Subject areas currently experiencing shortages are those fields in which higher paying career options are available, such as mathematics, the natural sciences, and technology (NASBE, 1998), or those requiring specialized subject knowledge, such as bilingual or special education (NCES, 1997b).

Distribution is an economic issue as well. Fideler & Haselkorn (1999) predict that high-wealth suburban districts "will always have a glut of applicants" (p. 4), but that for low-wealth urban and rural school districts, it will be increasingly difficult to find and hire qualified

teachers. Distribution difficulties will be most common in the southern and western parts of the country, where the population is climbing (Darling-Hammond, 1999), and particularly acute in central city public schools. Distribution problems may be further compounded in central city public schools by collective bargaining agreements and practices that tend to place new teachers in the most difficult classes.

Distribution of teachers among racial and ethnic groups is also problematic. Futrell (1999) states that roughly 35% of American school children are from linguistic- or racial-minority families—a figure that is expected to rise to at least 40% in the next decade. While minority enrollment in teacher preparation programs has risen during the past few years (Bullard, 1998), the overall diversity of professionals working in K-12 schools has dropped from 12% in the 1960s to a current 5% (Futrell, 1999; AACTE, 1990). The National Center for Educational Statistics (1997a) reveals that while one-third of students in the public schools are children of color, less than 10% of individuals training to teach are minority. Researchers predict that this trend will continue into the 21st century when 41% of students in American schools will be children of color, but only 5% of the teachers will be minority (Latham, Gitomer & Ziomek, 1999; NCES, 1998).

While the shortage of minority teachers impacts the diversity of role models available to all students, it may have the most dire effects on children in central city public schools. Teachers of color and ethnically diverse teachers more often teach in urban, high-risk schools (Murnane, 1991), and are often the most successful teachers in these settings (Haberman, 1996). Futrell (1999) states that this shortage of qualified minority teachers means that minority students and students from economically disadvantaged backgrounds may not have opportunities to acquire "the academic background, skills, and knowledge that are prerequisites to succeeding in college"

(p. 31). Central city public schools are more likely to experience multiple teacher distribution problems. For example, NASBE (1998) found that nationwide, "over 70% of students taking physics classes in high-poverty secondary schools are being taught by a teacher who does not have even a college minor in physics" (p. 4). Similarly, between 33 and 50% of teachers of mathematics in these same secondary schools have neither a college major nor minor in mathematics (NCES, 1998). Fideler & Haselkorn (1999) describe the distribution problems in central city public schools as "a form of affirmative action in reverse, ensuring that students in the nation's most challenging classrooms get its least qualified teachers" (p. 4).

Virginia's Response to Teacher Shortages

Problems with teacher distribution in the Commonwealth of Virginia mirror national trends (Stallsmith, 1999). Last year, Virginia employed just over 86,000 teachers, with 4,000 of those teachers hired at the beginning of the 1998-99 school year. Since enrollment in the Virginia public schools is expected to top 1.13 million students this year, and since state and local education officials are pushing for smaller class sizes, the number of teachers hired in Virginia could well exceed 5,000 for the 1999-2000 school year.

As the number of teachers needed in the Commonwealth increases, however, the pool of qualified teachers decreases. Again, state trends reflect national trends, but Virginia may also be feeling the impact of its recent drive for higher standards for both teachers and students. Cut-off scores on the PRAXIS I exam, a basic skills test required for students entering teacher preparation programs, are higher in Virginia than in any other state. While this policy ensures competency in reading, writing, and mathematics for those entering the profession, it may also eliminate the choice of a teaching career for some Virginia students. Similarly, Stallsmith (1999)

suggests that stress associated with the standardized tests measuring student achievement of the Virginia Standards of Learning may be encouraging some experienced teachers to leave the profession. Stress results as administrators in some schools and divisions pressure teachers to engage in inappropriate practices in the hopes of increasing SOL test scores. Finally, the Virginia General Assembly's passage of a law allowing teachers age 50 or older to take early retirement after 30 years of teaching further reduces the number of qualified teachers throughout the Commonwealth.

RECRUITMENT OF QUALITY TEACHERS

Teachers, potentially the single most important school-based determinant of student learning (Wise, 1999), may encounter barriers that prevent them from entering the teaching profession. Attracting the best and the brightest into teaching is challenging because many aspiring professionals realize they can earn more money, prestige, and responsibility by becoming a lawyer, doctor, or business leader (Futrell, 1999; Nagle, 1999). Many states and school divisions, however, are developing recruiting practices to enhance the appeal of the profession and to lure well-trained teachers into their schools.

Policies in Education

Although the hiring and placement of teachers is largely a district and school responsibility, ensuring a sufficient supply of high-quality teachers is fundamentally an issue of state policy that requires far-reaching, systemic reform to build a coherent system of teacher recruitment, development, and support.

> States have traditionally made policies concerning teacher development and supply according to immediate needs rather than long-term plans. The result is

> usually an *ad hoc* array of programs and policies for teachers, many of which have conflicting purposes and may be based upon opposing conceptions of the purpose of teacher work, the content of teacher knowledge, and the nature of teacher skills. Without developing clear, challenging teacher standards and devising ways to measure teacher effectiveness according to those standards, states are likely to find it impossible to provide a pool of teachers possessing the skills and knowledge districts say they need (NASBE, 1998, p. 6)

Most state boards of education have the authority to control access into the field through accreditation and licensure requirements and to set standards for continuing practice through certification and continuing educational requirements. The state can also provide incentives to attract more individuals to the field and allow disincentives to deter individuals from entering. Finally, most state boards can set standards that define the purpose and level of each component of teacher development (NASBE, 1998).

Policies established for both pre-service and in-service teachers may prove effective in meeting the increasing need for teachers over the next decade. Darling-Hammond (1999) points out that the federal government helped to off-set shortages in medical fields by funding training opportunities and scholarships for candidates in shortage areas. President Clinton's September 1999 release of $33 million in federal grants indicates that the government is beginning to provide similar support for the teaching profession. These grant funds were awarded to 25 partnerships between schools of arts and sciences, teacher preparation programs at the same institutions, and high-need local school districts. The goal of these partnerships is to improve teacher recruitment, preparation, licensing and certification, as well as provide support for in-service teachers (White House Fact Sheet, 1999). At the state level, setting and maintaining high standards for teacher licensure, even in high need subjects, as well as providing financial incentives for currently practicing or newly recruited teachers, are both policies that have been proven successful in attracting and retaining teachers (NASBE, 1998).

The Commonwealth of Virginia has initiated several programs to support both teacher recruitment and teacher retention. The Virginia Teaching Scholarship Loan Program (VTSLP) provides incentives to students planning a teaching career in one of Virginia's critical shortage fields. Presently, critical shortages exist in special education, chemistry, physics, earth science, mathematics, technology education, and foreign language. Males preparing to teach in elementary or middle schools and persons of color in any teaching field are also eligible for the program. Each year, 100 students across the Commonwealth receive a $3, 000 scholarship-loan. Upon graduation, the scholarship-loan is forgiven if students teach in critical shortage areas in Virginia public schools for at least three semesters. Since its beginning in 1996, the VTSLP has provided support for over 400 students preparing to teach in Virginia public schools.

Teacher Preparation

Knowledge of subject matter and knowledge of teaching and learning acquired in teacher education programs are strongly correlated with teacher performance in the classroom (Darling-Hammond, 1999). State policy-makers, however, often express concern about teacher preparation programs that devote significant coursework to pedagogy over subject content. "The only thing that I've found that really interests the policy maker community is the commitment that teacher education is beginning to make—that we will make a documentable difference in the learning of K-12 students" (Imig, 1999, p. 2). Given the fact that half of the teachers who will be teaching in the year 2005 will be hired over the next decade (and large-scale hiring will continue into the decade thereafter), now is the time to transform the quality of teacher preparation (Darling-Hammond, 1996).

Teachers who rate the quality of pre-service training higher and believe themselves to be better prepared for teaching remain in the field longer than do teachers who view themselves as less-prepared (Veenman, 1984; Page, Page, & Million, 1983). NASBE (1998) identifies several concerns with traditional undergraduate teacher preparation programs. Many undergraduate programs do not provide enough time to learn subject matter and theories, and to practice effective teaching. Others are criticized for assuming a Eurocentric model of teaching, learning and knowledge, not being integrated, being split by subjects, and ignoring electronic information sources.

Financial resources may impact the quality of teacher preparation programs and their potential for reform. Field-based training experiences are increasingly recognized as a core component of quality teacher preparation. Establishing relationships with public schools in which this training can occur and providing appropriate supervision, however, makes field-based training much more expensive than more traditional models. In many institutions of higher education, teacher preparation programs are treated as "cash cows" for the university's overall needs. Tuition paid by education majors is diverted into other programs, and is unavailable for programmatic reforms (Merrow, 1999).

In order to help emerging professionals develop reflective practices and problem-solving dispositions, however, teacher preparation and induction programs have increasingly attempted to engage them in school-based inquiry and reflection on their students' experiences (Darling-Hammond, 1996). These extended experiences and the additional course- and/or degree-work in subject area content to meet standards-related licensure requirements have stretched some teacher preparation programs from four to five, or even more, years. Teachers coming from these extended programs begin their careers with an undergraduate liberal arts degree and a

master's degree in education. Adams and Dial (1993) found in their study of Indiana teachers that graduate education was a significant determinant of teacher retention. Teachers with bachelors degrees were about 68.1% more likely to leave the profession than teachers with graduate degrees.

Standards

Standards for teacher certification vary from state to state. Some states require teachers to have a college major in the subject to be taught. Others require less than a minor in the field to be taught, a few education courses, and limited guided practice (Darling-Hammond, 1999). NASBE (1998) advocates state efforts toward finding ways to incorporate the best of education and training knowledge into a standards-based system of teacher education. Movements toward this recommendation are already in place in many states, including Virginia.

The adoption of the Virginia Standards of Learning (SOLs) by the State Board of Education in 1995 was just the beginning of standards-driven educational reform in the Commonwealth. The next step, initiated in 1996, was to develop standardized tests to measure student progress toward learning the SOLs. These tests were first administered in the spring of 1998. In 1997, the Virginia Board of Education adopted new Standards of Accreditation (SOAs) requiring students to pass a minimum number of high school SOL tests for graduation. The SOAs also stipulate that at least 70% of the students in a Virginia public school must pass the applicable SOL tests in order for that school to retain accreditation. Finally, teacher preparation programs across the Commonwealth are also being required to address both the SOLs and the SOAs in their programs of study, as well as other state guidelines, in order to retain their

accreditation. Reform in Virginia has meant increased accountability in the education of teachers and of children.

Several organizations have developed their own standards to assist teacher education in reforming its programs. The Interstate New Teacher Assessment and Support Consortium (INTASC) has developed performance standards for teacher licensure. Authentic assessments related to these standards are designed to hold teachers accountable for reaching the standards in their first year of practice. More than 20 states have either directly adopted or modified the INTASC standards for beginning teacher licensure (INTASC, 1996). Teacher education programs in those states seek to align their program requirements to the INTASC standards. The National Council for the Accreditation of Teacher Education (NCATE) has also created a set of standards for teacher education programs that incorporate the performance standards developed by INTASC. Currently, 46 states are in partnership with NCATE, linking program accreditation at the state level to these standards (NCATE, 1998).

Teacher Testing

Included in the standards developed by these groups and by many state boards of education is the requirement that teachers pass a standardized test on either teaching pedagogy or content knowledge or both before being certified by the state. Policymakers and researchers have expressed concern over the standardized testing of teachers. While some data suggest that many of those who enter teaching have graduated in the bottom half of their high school classes, other data indicate that "candidates applying for their teaching license, specifically those who pursue licensure in particular content areas, have reasonably strong academic skills, skills that are substantially higher than many previous researchers have suggested" (Latham, et al, 1999, p.

26). Regardless of the teachers' abilities, Newman (1998) expresses concern that tests on pedagogy, content, or both are far too narrow to accurately assess teacher knowledge and skill.

The Teaching Pool

The potential pool of teaching candidates extends beyond traditional college and university students preparing to enter the work world for the first time. The teaching pool consists of individuals from five different groups, several of which are commonly excluded in discussions of teacher supply and demand:

- The active pool: recent graduates of teacher education programs who have or are searching for a teaching position.
- The reserve pool: former teachers or individuals with teaching credentials who have yet to use them.
- Those with experience in the education field: private school teachers, teacher aides and assistants, and teachers from other states.
- Mid-career changers: individuals currently in other fields.
- Future teachers: college and high school students (Bullard, 1998).

In 1993-1994 the reserve pool accounted for the majority of newly hired teachers in the United States. Since then, however, the proportion of teachers new to the profession hired by school districts has increased (NCES, 1998). Since an increasing number of teachers are coming from outside the reserve pool, policy makers must use diverse tools to attract these individuals to teaching and to hire them in shortage areas and fields.

Alternative Routes to Licensure

Currently, many states are turning to alternative routes to teacher licensure to meet their needs for teachers. Alternative route programs are designed to attract and train older professionals looking to change careers. Generally, these programs provide prospective teachers

with an intensive summer of training, a year of weekend meetings (Merrow, 1999), and close classroom supervision for at least the first year. Some alternative routes to licensure provide thoughtful and meaningful training for individuals with teaching experience in other fields or with non-teaching experience in education to become classroom teachers. NASBE (1998) suggests that some alternative routes have become more rigorous and competitive than many traditional university preparation programs. Graduates from these programs are aggressively recruited by their local school districts (Merrow, 1999).

An example of an alternative route to licensure, paraeducator-to-teacher programs have been incorporated into collective bargaining agreements by some teacher unions and/or developed collaboratively by school districts and teacher preparation programs. Paraeducators expand the pool of potential teachers from underrepresented groups as well as bring mature individuals with classroom experience into the profession. These programs, which strengthen connections among classrooms, colleges and communities, also have lower rates of attrition than traditional teacher preparation programs (Fideler & Haselkorn, 1996).

Similar routes to alternative education have also been developed to encourage retiring military personnel into classroom teaching (Stallsmith, 1999). The Troops-to-Teachers Program established by the U.S. Department of Defense in 1994 is based on three goals: (1) to assist military, Coast Guard, and civilian personnel impacted by military reductions to enter a career in public education; (2) to provide role models for the nation's public schools; and (3) to relieve teacher shortages in math and science.

In the Commonwealth of Virginia, licensure regulations identify three routes for the licensing of teachers. First, teachers may be licensed by successfully completing a state-approved teacher preparation program. Second, teachers coming into Virginia from other states

may qualify for a Virginia license in comparable endorsement areas through reciprocity agreements between the states. Finally, individuals may become licensed via an alternative route. An individual employed by a Virginia school division or nonpublic school can be issued a three-year, nonrenewable provisional license at the request of the employing agency if that individual holds a baccalaureate degree from a regionally accredited institution and satisfies at least one specific endorsement area. To meet requirements for the five year renewable license, the individual must meet or surpass the established cut-off scores for the Professional Teacher's Assessment and complete professional studies coursework from an accredited institution or coursework as specified by the Superintendent of Public Instruction, Virginia Department of Education.

An emergency or provisional license is a temporary measure for teachers who have not met all the requirements for state licensure (Spafford, Pesce, & Grosser, 1998). Teaching is the only state-licensed occupation that allows the certification of untrained people for work on an emergency basis (Newman, 1998). Darling-Hammond (1999) cautions that emergency certification programs may exacerbate the problem of supply and demand rather than solve it. Teachers with emergency permits or waivers are more likely to leave the profession within their first few years of teaching (Bullard, 1998). Lawrenson and McKinnon (1982) have also found that teachers earning graduate degrees remain in the field for a comparatively longer time than those receiving alternative route certification. Emergency licensure programs also conflict with efforts to increase the professional status of teaching through increased entry requirements and training standards (Darling-Hammond, 1999; NASBE, 1998).

> Standards for teaching represent a state's commitment to parents and communities that their children's teachers are highly capable and have the knowledge and skills needed to nurture the full potential of all students (NASBE, 1998, p. 9).

Concerns about emergency licensure extend to hiring practices that place teachers in out-of-field assignments. The National Commission on Teaching and America's Future (1997) estimates that over 25% of all teachers enter the classroom without proper qualifications in their major field of teaching. Hiring teachers outside their field of expertise has negative effects on student learning and most often impacts our nation's most vulnerable children.

Other Barriers

Other barriers in teacher recruitment include late budget decisions on the part of the state and local government, and teacher transfer provisions that push hiring decisions until August or September. Lack of pension portability across states, loss of salary credit, and teachers who move are also problematic. NCES (1997c) found that of those teachers who leave the profession, 35% do so because they relocate. Mobile teachers may find themselves penalized by loss of seniority and wages, as well as their vested pensions plans, because of state policies based on local rather than national labor markets (NASBE, 1998).

Unfortunately, it is also still the case that some districts engage in patronage hiring or hire an untrained teacher who costs less than a well-qualified teacher with greater education and experience (Darling-Hammond, 1999). These practices offer evidence that some states and districts create their own problems with regard to teacher shortages. The National Commission on Teaching and America's Future found that the hiring of underqualified teachers in many communities was less a function of the labor market shortage than it was of cumbersome hiring procedures that deter good candidates and prevent efficient and timely hiring (Darling-Hammond, 1999). Combined with resignation policies that allow teachers to leave their positions up until the academic year begins, many districts cannot begin hiring teachers in a

timely fashion. Consequently, school districts with high turnover rates (such as urban school districts) are placed at a disadvantage.

RETAINING QUALITY TEACHERS

Ingersoll (1998) concludes that it is a mistake to assume that hiring difficulties and out-of-field teaching are the result of teacher shortages in the conventional sense of the availability of candidates willing to enter the profession. The demand for new teachers comes about primarily because teachers choose to move from or leave their jobs at far higher rates than do professionals in many other occupations (NCES, 1998). "We're misdiagnosing the problem as 'recruitment' when it's really 'retention'" (Merrow, 1999, p. 64). In the fifth Phi Delta Kappa poll of teachers' attitudes toward the public schools, findings revealed that more teachers today say their schools have trouble retaining teachers (Langdon, 1999).

Teacher Attrition

The National Center for Education Statistics (1997c) reports that across the nation 9.3% of public school teachers leave before they complete their first year in the classroom and over 1/5 of public school teachers leave their positions within their first three years of teaching. Additionally, nearly 30% of teachers leave the profession within five years of entry and even higher attrition rates exist in more disadvantaged schools (Delgado, 1999; Darling-Hammond, 1999).

Regardless of where they teach, novice teachers, particularly first year teachers, are at risk for leaving the profession. Despite quality academic training and successful student teaching experiences, first year teachers may be disillusioned if adequate support and guidance

are not present in the school setting (Delgado, 1999). Snider (1999) asserts that many new teachers are demoralized by the lack of autonomy and professional status they find in the schools and that "as many as one-half of all new teachers respond by leaving the profession" (p. 64).

Researchers have linked a number of aspects of job satisfaction to teacher retention. Among these are administrative leadership and support (Betancourt-Smith, Inman, & Marlow, 1994; Chittom & Sistrunk, 1990; Billingsley, 1993), salary (Kim & Loadman, 1994; Kirby & Grissmer, 1993), and interaction and emotional support from mentors and colleagues (Kim & Loadman, 1994; Billingsley, 1993; Odell & Ferraro, 1992). Relationships with parents and families (Shann, 1998; Billingsley, 1993) and with students (Shann, 1998; Kim & Loadman, 1994) were also identified as components of teacher satisfaction. Finally, teachers indicated that professional challenge and autonomy (Shann, 1998; Kim & Loadman, 1994), as well as opportunities for advancement (Kim & Loadman, 1994), were related to their job satisfaction.

Additional research on improving retention of special education teachers is needed because teachers in this field are particularly at-risk. Cooley (1996) conducted a survey of 158 special education teachers to determine their plans for remaining in or leaving their current teaching positions. Only 57% indicated it likely they would return in five years. Data were analyzed to determine variables that differed significantly between teachers likely to stay in their positions and those likely to leave. The results of these analyses, along with teachers' written comments, suggest that administrative support played an important role in teachers' five-year plans.

Many of the highest teacher attrition rates in the nation are in urban districts (Adams & Dial, 1993). Common reasons cited by teachers for this attrition are lack of administrative, collegial, and parent support and insufficient involvement in decision-making (Billingsley,

1993). The latter reason is consistent with data reported by Lippmann, Burns, McArthur, Burton, Smith, & Kaufman (1996), who found that urban teachers generally report having less influence over their curriculum than do teachers in suburban and rural schools.

Both novice and experienced teachers describe student discipline as a major concern. Langdon's (1996) survey determined that discipline was the primary reason teachers left the profession. Findings of the National Center for Education Statistics (1997c) also support that teachers are more likely to leave the profession if they believe that student motivation and discipline are problems in their schools.

Low salaries have been linked to higher rates of teacher attrition (Darling-Hammond, 1999; NCES, 1997a; Murnane, Singer & Willett, 1989). In an NCES (1997) study, teachers identified low salaries as the second most common reason for leaving the profession. Langdon's (1999) survey, however, indicated that low pay was first on the list of reasons for difficulties in getting and keeping good teachers. Shen (1997) also found that the amount of annual salary for teachers was positively correlated with teacher retention. Stallsmith (1999) points out that Virginia falls below the national average for teacher salaries. The average Virginia "teacher's salary for the 1997-98 school year was $36, 527, almost $3,000 short of the national average of $39, 477" (p. A-7).

NCES (1997) found that of those teachers who leave teaching, 35% do so because they relocate. Teachers, however, are less willing to relocate to obtain a job than other professionals because the financial payoff is less (Newman, 1998). Shen (1997) found that less experienced teachers relocate more often than those with more experience. Experienced teachers who move may find themselves penalized by loss of seniority and wages, as well as their vested pension plans, because of state policies based on local rather than national labor markets (NASBE, 1998).

Issues in the work environment may also provide the impetus for teachers leaving the profession. The large numbers of students assigned to classrooms and the inability to meet those students' needs (Billingsley & Cross, 1992) have been associated with teacher attrition. Futrell (1999) describes the frustration that many teachers feel because of the "rigid, bureaucratic hierarchy in which teachers are treated like tall children rather than like professionals" (p. 31). A lack of authority to make decisions about curriculum, assessment, scheduling, and policy leads both experienced and novice teachers to doubt their professional status.

Time, according to Darling-Hammond (1996), may also be a concern of teachers at all levels. Most secondary teachers in the U.S. have around five hours each week to prepare for six hours of classes each day. Elementary teachers typically have even less preparation time—three or fewer hours per week. Teachers, therefore, do not have time to meet with other teachers, develop curriculum or assessments, or observe one another's classes--all important activities for professional growth and development. They take papers home at night to grade and conference with students and families outside of contract hours.

In the 1986 *Metropolitan Life Survey of Former Teachers in America*, 57% of those surveyed described the "great stress" under which they worked in the classroom. Weil (1997), describing his own classroom teacher's perspective, agrees that teaching is stressful. He believes that teachers labor under the unreasonable expectation that the schools "will compensate for our nation's inability to cope with many of its problems" (p. 763). That expectation requires teachers to be experts not only in pedagogy and content, but also in counseling, educational policy and social reform.

Professional Development and Mentorship

Opportunities for further development of professional knowledge and skills may be an essential component in addressing concerns and needs of classroom teachers. Wasley (1999) describes a comprehensive agenda for supporting novice teachers and for extending responsibilities as teachers develop professionally. Likewise, among the goals for educational reform developed by The Holmes Group (1986) is a stated focus on recognizing differences in teachers' knowledge, skill, and commitment in their education, certification, and work (p. 4). Mentorship of first year teachers is the initial component in each of these and other plans for enhancing the teaching profession.

Many first year teachers experience overwhelming isolation as they leave the support of student teaching cohorts, cooperating teachers, and university supervisors to work with children behind the closed door of a classroom. Leaving the support to which they were accustomed in their training may shatter the goals, diminish the spirits, and destroy the self-confidence of first year teachers (Delgado, 1999). Collegial support and interaction appear to influence satisfaction and retention among teachers (Popkewitz & Myrdal, 1991; Theobald, 1989; Bloland & Selby, 1980). Wasley (1999) believes that new teachers need assistance with both long- and short-range planning, transitioning children from one activity to another, including children with special needs or language differences, and working with parents. This assistance can best be provided by more experienced teachers who are working or have recently worked toward similar goals in similar settings.

Recognizing the importance of supporting teachers during their first years in the classroom, several states have developed mentoring programs. In California, the Beginning Teacher Support and Assessment (Olebe, Jackson, & Danielson, 1999) program is based on the

premise that teachers learn good practices through several years of study, consultation with experienced peers, and reflective practices. The Kentucky Internship Program (Brennan, Thames, & Roberts, 1999) provides guidance for new teachers through structured assistance and assessment by an experienced teacher, a university representative, and the school principal. These and other mentor programs have proven successful in providing support to retain teachers in the profession.

Support for teachers, however, must extend beyond their first years in the classroom. Asa Hilliard believes that teachers develop their professional perspective and philosophy through experience, study and reflection (Checkley & Kelly, 1999). On-going dialogue with colleagues and professional studies, therefore, are needed throughout teachers' careers and should be an important part of each school day (NASBE, 1998). Such activity will equip teachers to lead reforms within their schools and to build the status of the profession. Many school divisions have developed programs for supporting and evaluating experienced teachers similar to those for new teachers. Peer review and intensive support and assistance for teachers having difficulty meeting set standards help them either to improve their practices or leave the field.

Recognizing Excellence in Teaching

Avenues of professional recognition and reward for experienced teachers were not widely available until recently. The National Board for Professional Teaching Standards (1992) has established high and rigorous standards for what accomplished teachers should know and be able to do. Teacher performance is measured against these standards in a voluntary assessment system. Teachers who meet these standards receive National Board Certification and the accompanying recognition. Darling-Hammond (1996) asserts that the self-assessment required

in the NBPTS certification process benefits teachers by stimulating reflective practice in an ongoing process of learning. Wise (1999) states that National Board Certification encourages quality teachers to remain in their classrooms by creating new career options for them. States and school divisions alike recognize the implications of National Board Certification, and many offer financial support to teachers pursuing certification, as well as financial rewards to those achieving it. Offering significant stipends to National Board Certified teachers serving as mentors to novice teachers has allowed state and local school divisions to capitalize on the talents of these teachers.

For the 1998-2000 biennium, the Virginia General Assembly appropriated $150,000 to support teachers pursuing National Board Certification. Virginia teachers receiving National Board Certification are recognized with a National Teacher Certification Incentive Reward, provided by *The Education Accountability and Quality Enhancement Act* of the 1999 Virginia General Assembly. Currently there are 27 teachers in the Commonwealth who have received National Board Certification.

The Virginia Department of Education participates in several state and national initiatives that provide recognition and support for in-service teachers throughout the Commonwealth. For over 35 years, Virginia has participated in the National Teacher of the Year program sponsored by the Council of Chief State School Officers and *Scholastic Incorporated*. Through a statewide process that involves students, teachers, parents, school administrators and school boards, each of Virginia's 133 public school divisions and all accredited private schools are invited to nominate teachers for recognition at the regional level. The eight regional recipients are then interviewed by a selection panel that announces the recipient of the Virginia Teacher of the Year. That individual represents the Commonwealth in the National Teacher of the Year program.

Virginia also participates in the Christa McAuliffe Fellowship Program, a federally-funded program honoring the late Sharon Christa McAuliffe, the New Hampshire teacher who was an astronaut on the space shuttle Challenger in January, 1986. The focus of this program is to provide fellowships to outstanding classroom teachers that will enable and encourage them to continue their education, develop innovative programs, consult with or assist local educational agencies or private schools, or engage in other educational activities that will improve the knowledge and skills of teachers and education of students (VDOE, 1999).

In 1999, Virginia joined 41 other states in recognizing outstanding teachers through the National Educator Awards Program created by the Milken Family Foundation. This year eight Virginia public school teachers, one from each superintendents' region, received $25, 000 to acknowledge excellence, dedication and innovation in their work with children. In the future, four public school teachers will be recognized each year through the National Educator Awards Program.

CONCLUSION

The Commonwealth of Virginia hired approximately 6,000 new teachers for the 1999-2000 school year (Elliott, personal communication, November 4, 1999), and anticipates that this number will increase with each year in the coming decade. Reviewing the issues surrounding teacher recruitment and retention, it is evident that no one solution will resolve the anticipated teacher shortage and that no one agency can assure teacher quality. Instead, providing teachers for Virginia public schools will require systemic reform and intensive collaboration between state policymakers, institutions of higher education, and our public schools. Although reform and collaboration are often time-consuming processes, the pressing need for teachers in Virginia

classrooms will not allow prolonged debate. Decisions must be made and actions must be taken to ensure continuing high standards for Virginia's public schools.

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ANNOTATED BIBLIOGRAPHY

Adams, G., & Dial, M. (1993). Teacher survival: A Cox regression model. Education and Urban Society, 26(1), 90-99.

This study reports on several characteristics that are significantly related to teacher retention in a large urban school district. A Cox regression model was used to model teacher turnover in a large urban school district. This procedure is a form of survival or event history analysis. The covariates in the model, sex, ethnicity, and age, were significantly related to teacher survival in the school district. The effects of education (bachelor's versus graduate degree) were significant in explaining teacher survival in the district when added to a model which controlled for sex, ethnicity, and age. Certification route (traditional versus alternative certification) was significant in explaining teacher retention in a model that already controlled for sex, ethnicity, age, and education. Findings also revealed that teachers who began their teaching careers before they were 40 years of age were 43% more likely to leave the district than teachers who began their teaching careers at 40 or older. Teachers with only a bachelor's degree were 68% more likely to leave the school district than teachers with a graduate degree.

Betancourt-Smith, M., Inman, D., & Marlow, L. (1994, November). Professional attrition: An examination of minority and nonminority teachers at-risk. Paper presented at the annual meeting of the Mid-South Educational Research Association. (ERIC Document Reproduction Service Number ED 388639)

There is significant evidence demonstrating the inability of the teaching profession to keep pace with other occupations with regard to the retention of talented individuals. While minority teachers are particularly at risk, many teachers, both minority and nonminority, leave the profession within a few years of entering. The purpose of this study was to compare a profile of minority teachers with nonminority teachers in selected states, and to compare factors previously identified as correlated with attrition to the findings of this study. Findings indicated that single teachers tended to leave the profession entirely whereas married teachers usually moved into other roles in education, such as administration. Findings also revealed that secondary teachers who did not perceive their principal as supportive of creativity were also candidates for leaving.

Billingsley, B. S., & Cross, L. H. (1992). Predictors of commitment, job satisfaction, and intent to stay in teaching: A comparision of general and special educators. Journal of Special Education, 25(4), 453-471.

This study identified variables that influence teachers' commitment and job satisfaction among both general and special educators. A secondary purpose was to determine the extent to which these commitment and satisfaction variables influence teachers' intent to stay in teaching. A questionnaire was sent to a random sample of 558 special educators and 589 general educators in Virginia. Completed questionnaires were received from 83% of both samples. Cross-validated regression results suggest that work-related variables, such as leadership support, role conflict,

role ambiguity, and stress, are better predictors of commitment and job satisfaction than are demographic variables. The findings were similar for general and special educators.

Billingsley, B.S. (1993). Teacher retention and attrition in special and general education: A critical review of the literature. The Journal of Special Education, 27(2), 137-174.

The primary purpose of this paper was to review and to critique the research findings related to teacher retention and attrition in special education. Major findings from general education retention studies are also reviewed to offer a context for understanding the career decisions of special educators. The findings are organized around a model of teachers' career decisions that includes three major factors: external (societal, economic, and institutional); employment (professional qualifications, work conditions and reward, commitment, and employability); and personal (demographics, family, and cognitive/affective).

Bloland, P. A., & Selby, T. J. (1980). Factors associated with career change among secondary school teachers: A review of the literature. Educational Research Quarterly, 5, 13-24.

This is a review of the literature on attrition from teaching which examines the effects of the following variables: sex of teacher, amount of education, race, socio-economic status, salary, lack of opportunity for advancement, professional frustration and "burnout", size of school, size of faculty, relationship with colleagues, and relationship with principal. The recommendation is made that more may be learned about teaching as a career if investigations were to focus on senior teachers who leave the field rather than younger teachers for whom the profession may represent only a tentative commitment.

Brennan, S., Thames, W., & Roberts, R. (1999). In Kentucky, mentoring with a mission. Educational Leadership, 56(8), 49-52.

This article discusses Kentucky's successful mentoring program to support new teachers. The internship program uses a collegial team approach to help teachers develop a strong, lifelong foundation. The program is also built on a reflective teaching model that focuses on analysis of student learning. The article gives an overview of the program model and components with specific description on the use of portfolios as a useful tool. The article concludes with a discussion of on-site survey results, the findings of which suggest that the program proved valuable to participants in several aspects.

Bullard, C. (1998). Qualified teachers for all California students: Current issues in recruitment, retention, preparation, and professional development. Sacramento, CA: California Research Bureau, California State Library.

This paper describes the current issues in teacher recruitment, retention, preparation, and professional development. In addition, the paper lists legislative efforts from the 1997-98 session, and outlines further policy options for consideration. The paper provides a good historical background and identifies common themes in the literature with regard to the

aforementioned issues. The main focus of the report is on improving teacher qualifications, and increasing the number of qualified teachers, in the context of current public school needs.

California Commission on Teacher Credentialing. (November 1997). California's future: Highly qualified teachers for all students. Final Report of the Advisory Panel on Teacher Education, Induction and Certification for Twenty-First Century Schools (SB 1422). Sacramento: Author.

The report shares an overview of the comprehensive review of teaching credential requirements in California. The Advisory Panel's educational goals are to: improve teacher recruitment, selection, and access; establish clear standards that provide strong direction for teaching candidates; increase professional accountability; and change the teacher certification system. Twelve policy recommendations are proposed that target the issue of a restructured certification system, including multiple flexible routes into the profession.

Carnegie Task Force on Teaching As a Profession. (1986). A nation prepared: Teachers for the 21st century. New York: Carnegie Forum on Education and the Economy.

The report calls for a more substantial change in the teacher's work environment. The report agreed that three challenges were to be met: the standards for entering teachers must be raised; ways must be found to retain teachers; and the structure of the system must be redesigned to take maximum advantage of highly skilled teachers. The group sought to create a National Board for Professional Teaching Standards and to offer salaries and career opportunities comparable to other professions.

Checkley, K., & Kelly, L. (1999). Toward better teacher education: A conversation with Asa Hilliard. Educational Leadership, 56(8), 58-62.

This article is an interview with noted teacher, psychologist, and historian Asa Hilliard, who has been active in the field of education for more than 38 years. Hilliard describes two categories of fundamental weakness in most teacher education programs. One is the failure to call on teachers to immerse themselves in-depth in an area of interest. The other is that the methods teacher education programs teach tend to be formalistic, ritualistic, and routine—but not necessarily valid. Hilliard suggest that teachers develop a deep knowledge about the subjects that they enjoy because they will then be eager to share what they have learned with students.

Chittom, S. A., & Sistrunk, W.E. (1990, November). The Relationship between secondary teachers' job satisfaction and their perceptions of school climate. Paper presented at the annual meeting of the Mid-south Educational Research Association, New Orleans. (ERIC Document Reproduction Service No. ED326567).

Whether or not there are significant differences in public secondary school teachers' perceptions of school climate and their levels of job satisfaction was studied. In a random sample of 30 public secondary schools in Mississippi, one teacher from each of the subject areas of English, mathematics, science, and social studies was randomly selected. The number of respondents was 120 teachers. Subjects were administered the National Association of Secondary School

Principals Teacher Satisfaction Survey, and the NASSP School Climate Survey. The data revealed a significant relationship between respondents' perceptions of school climate and job satisfaction.

Cooley, E. (1996). Supporting professionals at-risk: evaluating interventions to reduce burnout and improve retention of special educators. Exceptional Children, 62(4), 336-356.

This article describes a controlled study of 92 special educators and related service providers that evaluated the effects of two interventions on factors known to be correlated with teacher turnover (burnout, job satisfaction, and organizational commitment). Results showed that improvements on dependent variables occurred as a function of intervention, suggesting the programs are a potential promise as a means of providing support for special educators. Participants in the study perceived the targeted skills and strategies to be practical, valuable ways to prevent or alleviate job burnout.

Darling-Hammond, L. (1996). The quiet revolution: Rethinking teacher development. Educational Leadership, 53(4), 4-10.

The author discusses how educational reform has shifted towards investing in teachers rather than in implementing regulations. Improving educator's professional performance is the key; therefore, development in the initial training, and redefining career paths to get teachers more involved in research and standard setting should be the goal. Darling-Hammond, a leading researcher in this area, believes that reforms that invest time in teacher learning and give teachers greater support and autonomy are our best hope for improving America's schools.

Darling-Hammond, L. (1999). Solving the demands of teacher supply, demand, and standards: How we can ensure a competent, caring, and qualified teacher for every child. Columbia: National Commission on Teaching and America's Future [On-line] Available: http://www.tc.columbia.edu/~teachcomm/CONFERENCE-99/SOLVING/

This major report reveals variations with regard to standards held across states. At the conclusion of the report, several action steps for both states and school districts are recommended. Several charts and figures are contained in the report that demonstrate the relationship between student achievement of alternatively and traditionally prepared teachers and the relationship between basic skills, subject matter knowledge, teaching knowledge, and teacher performance. Charts and figures also show the license status of newly hired public school teachers and the average retention rates for different pathways into teaching. The author answers the question as to whether we can raise standards and still have enough teachers. Considerable attention is given in the report to critical shortage areas and barriers that prevent good teachers from entering and remaining in the field.

Delgado, M. (1999). Lifesaving 101: How a veteran teacher can help a beginner. Educational Leadership, 56(8), 27-29.

The author discusses how veteran teachers do not need to be official mentors to help their colleagues. Experienced educators can be helpful to isolated novices simply by reaching out informally and being compassionate critics. She discussed practical ways experienced teachers can help new teachers, including chance meetings in the hallways and through scheduled discussions during common preparation times.

Fideler, E. F., & Haselkorn, D. (1996). Breaking the class ceiling. Belmont, MA: Recruiting New Teachers.

The study is the third in a series of linked reports on the future of teaching in America. It charts a promising grass-roots teacher diversity and development movement—paraeducator pathways into teaching. RNT identified 149 programs nationwide that give paraeducators the tools to reach themselves as individuals, community members, and professionals. RNT believes that t' paraeducator-to-teacher programs present in this study hold significant promise for creating a more qualified, diverse, and culturally responsive teaching force. The study revealed that 77% of the more than 9,000 current participants identified in the survey were prospective teachers of color. Paraeducator programs, the study concludes, attract highly motivated individual already familiar with challenging classroom environments. The programs themselves must seek to provide these individuals with the tuition assistance, academic advisement, and support they need to succeed in challenging collegiate programs.

Fideler, E. F., & Haselkorn, D. (1999). Learning the ropes: Urban teacher induction programs and practices in the United States. A national study conducted by Recruiting New Teachers. Belmont MA: Recruiting New Teachers.

Recruiting New Teachers conducted this national study at a time when interest is growing with regard to teacher development. RNT sought to examine the role of induction in developing and retaining teaching professionals and to create a baseline for policy development and a resource for best practice. The research plan included surveys mailed to school districts in the nation's central cities and largest towns, with telephone follow-up as needed; site visits to exemplary programs, including focus group interviews with first-year teachers and their mentors and extensive interviews with site directors and other personnel. The most frequently mentioned barriers to inductee success included inadequate classroom management skills, discipline, work schedule, isolation in the classroom, insufficient preparation for dealing with cultural diversity, and large class size.

Futrell, M. H. (1999). Recruiting minority teachers. Educational Leadership, 56(8), 30-33.

Futrell outlines the complex problem of recruiting minority teachers. To reverse the decline in the number of teachers of color, educational leaders must understand the complex roots of the problem---and enact bold solutions. Futrell touches upon several issues that relate to minority recruitment, including salary, communicating the need for teachers, and career incentives. A lengthy list of bullets is offered as suggestions for recruitment of minorities.

Holmes Group. (1986). Tomorrow's teachers: A report of the Holmes Group. East Lansing, MI: Author.

The report was one of the first to show an increasing emphasis on teacher professionalism as a way to improve schools. The report calls for changes in the certification of teachers as the basis of reform. It argues for less bureaucracy and more autonomy as well as leadership for teachers and collegial relationships. The report also points the finger at professional schools as part of the problem hindering the professionalization of teachers. Additionally, the report was one of the first to discuss the teachers' working conditions as part of the problem. The Holmes Group boldly calls for a change in teacher assignments---jobs that would challenge and reward the best minds in teaching.

Ingersoll, R. (1998). The problem of out-of-field teaching. Phi Delta Kappan, 79(10), 773-776.

The author states that educational policymakers point out the need for qualified teachers. Federal programs have been launched to ensure adequate training of teachers, yet, the problem has not diminished. This is because schools continue to delegate to teachers coursework outside their field of expertise. The real cause of the problem of out-of-field teaching, in Mr. Ingersoll's view, is U.S. Society's lack of respect for the complexity and importance of the job.

Kim, I., & Loadman, W. (1994). Predicting teacher job satisfaction. Columbus: Ohio State University. (ERIC Document Reproduction Service No. ED 383707)

This study investigated predictors of teacher job satisfaction as these predictors may provide valuable information about teacher satisfaction and expectations. A sample of 2,054 practicing classroom teachers was selected from graduation lists at 10 universities. The respondents were employed in teaching positions at private and public and in rural and urban settings. The data were analyzed using multiple regression to identify statistically significant predictors of job satisfaction. The analysis produced a model with seven statistically significant variables: salary, opportunities for advancement, professional challenge, professional autonomy, working conditions, interaction with colleagues, and interaction with students.

Langdon, C. A. (1996). The third Phi Delta Kappa poll of teachers' attitudes toward the public schools. Phi Delta Kappan, 78(3), 244-250.

This article offers the results of a series of focus group interviews with public school teachers conducted in the summer of 1996. To compare teachers' opinions with those of the public, teachers were asked selected questions from the 1996 Phi Delta Kappa/Gallup poll of public attitudes toward the schools. Teachers reported that the biggest problem they face in their classrooms is the lack of support from parents. Teachers' second biggest problem was the amount of funding provided for public education. In this poll, for the first time, teacher claimed

that discipline was the main reason that teachers left the profession. In 1984 and 1989 teachers said it was low salaries, a response that fell to second place in the 1996 poll.

Langdon, C. A. (1999). The fifth Phi Delta Kappa poll of teachers' attitudes toward the public schools. Phi Delta Kappan, (April), 611-618.

This article compares the attitudes of the nation's public school teachers with those of the public on some of education's most controversial issues. One trend has emerged since 184: teachers' perceptions of what goes on in school rarely correspond with those of the public. Teachers' viewpoints are shaped by firsthand experience in America's classrooms with public school students. On the other hand, many people's opinions about what goes on in school are formed from the limited, often negative, information given in newspapers and on television. Among the many findings, this survey reveals that more teachers today say their schools have trouble attracting good teachers.

Latham, A. S., Gitomer, D., & Ziomek, R. (1999). What the tests tell us about new teachers. Educational Leadership, 56(8), 23-26.

In light of the current struggle schools are facing in meeting the demands for academically talented and ethnically diverse teachers, researchers at ETS and ACT set out to conduct a nation study to find out who our new teachers are. The data revealed that candidates applying for their teaching license, specifically those with licensure in particular content areas, have reasonably strong skills. Gender and ethnic composition of the teaching force, however, does not come close to matching that of the K-12 student population. The article touches upon the fear that the PRAXIS tests bar excessive numbers of minority candidates from the teaching population. For example, researchers in this study found that on the Praxis I, 82 percent of all white candidates passed, as opposed to just 46% of the African American candidates.

Lawrenson, G. M. & McKinnon, A. J.. (1982). A survey of classroom teachers of the emotionally disturbed: Attrition and burnout factors. Behavior Disorders, 8, 41-49.

This study surveyed 33 teachers of the emotionally disturbed to obtain information to assist in teacher recruitment, and to learn about teacher attrition and burnout. Information was obtained through a survey questionnaire as well as through structured telephone interviews. The conclusion of the study states that the attrition rate for teachers of emotionally disturbed students is high and administrators and supervisors need to be aware of the significant impact they have upon the job satisfactions, dissatisfactions, and attrition of teachers of emotionally disturbed students.

National Association of State Boards of Education. (1998). The numbers game: Ensuring quantity and quality in the teaching workforce. Alexandria, VA: Author.

This is the report of the NASBE Study Group on Teacher Development, Supply, and Demand. Within the framework of comparing concerns and policies of various states, the report discusses

the real problems in teacher quality, supply and demand; the issues in building a standards-based system of teacher development; aspects of teacher retention and high-quality teacher recruitment; and teacher licensure and recognition of accomplished practice. The report offers a list of recommendations for states with regard to the above areas. A comprehensive bibliography addressing the complex issue of teacher recruitment and retention is included.

National Board for Professional Teaching Standards. (1992). What Teachers Should Know And Be Able To Do. Southfield, MI: Author.

The National Board for Professional Teaching Standards works to strengthen the teaching profession and to improve student learning in America's schools. This is accomplished through a new system of advanced, voluntary certification. The ultimate aim of NBPTS is to certify all teachers who meet the standards. The report outlines the high standards for what accomplished teachers should know and be able to do.

Newman, J. W. (1998). America's teachers: An introduction to education (3rd ed.). New York: Longman.

This text offers prospective teachers a realistic introduction to the profession of teaching. The first chapter presents information of the job market, chapter two highlights current trends in teacher salaries and evaluation, focusing on attempts to reform and to restructure teaching education as an occupation. The middle chapters deal with issues of teacher certification and licensure, particularly the role of the Praxis Series of Assessments and the National Board for Professional Teaching Standards. The text spends several chapters on the relationship between schools and society, containing information on immigration, assimilation, and pluralism. The final chapters deal with the trends that are shaping American education as the twenty-first century begins.

Odell, S., & Ferrano, D. (1992). Teacher mentoring and teacher retention. Journal of Teacher Education, 43(3), 200-204.

This article describes a study in which two cohorts of beginning teachers were surveyed to determine whether they had remained in teaching and their retrospective attitudes about mentoring. These teachers were surveyed after four years of their initial, mentored teaching year. Approximately 96% of those located were still in teaching. Of the different types of support they received from their mentors, they most valued emotional support. The findings suggest that teacher mentoring may reduce the early attrition of beginning teachers.

Olebe, M., Jackson, A., & Danielson, C. (1999). Investing in beginning teachers—The California model. Educational Leadership, 56(8) 41-44.

The California Formative Assessment and Support system for Teachers is the largest state-supported reform effort to improve teaching. At the core of the program are mentoring relationships, new teaching standard, and formative assessement tools. This article describes the California Model as a system to support quality teaching. The article discusses the components

of CFASST—including the cycle of planning, teaching, reflecting, and applying-- and asked teachers for their feedback regarding the program.

Page, J., Page, F. & Million, S. (1983, April). Teacher education curricula: Perceptions of the first-year teachers. Paper presented at the annual meeting of the American Educational Research Association, Montreal, Canada (ERIC Document Reproduction Service Number ED 229 364)

This study sought to identify first-year teachers' perceptions of their undergraduate education curricula and to determine whether significant differences in perceptions exist among groups of first-year teachers categorized on the basis of background information. The study also determined which variables are most predictive of first-year teachers' decisions to continue as classroom teachers. A survey containing both controlled-choice and open-ended items was the basis for the study's results.

Shann, M. (1998). Professional commitment and satisfaction among teachers in urban middle schools. The Journal of Educational Research, 92 (2) 67.

Teacher job satisfaction is a multifaceted construct that is critical to teacher retention, teacher commitment, and school effectiveness. Interviews and questionnaires from 92 teachers in 4 urban middle schools were used to assess the importance and satisfaction they assigned to various aspects of their jobs. Research indicates that job satisfaction of teachers is linked directly to their perceptions effectiveness and competency. Teachers in higher achieving schools reported greater levels of satisfaction than those in lower achieving schools. Teachers also rated relationships with students and their parents as categories of highest importance and concern, respectively. A comprehensive review of the literature on the relationship between job satisfaction and teacher retention is included in the article.

Shen, Jianping. (1997). Teacher retention and attrition in public schools: Evidence from SASS91. The Journal of Educational Research, 91 (2) 81.

Teacher attrition and retention were examined by conducting discriminant function analyses on data gathered from the 1990-91 Schools and Staffing Survey and the 1991-92 Teacher Follow-up Survey. The sample size of this study was 3,612. Stayers can be statistically distinguished from movers and leavers on personal characteristics, school characteristics, and their perceptions of school-and profession-related issues. Policy recommendations based on the findings include building into teaching a career ladder, empower teachers, providing incentives to teachers working in schools with more disadvantaged students.

Spafford, C. S., Pesce, A. J. I., & Grosser, G. S. (1998). The encyclopedic education dictionary. Albany, NY: Delmar.

This dictionary is a resource that contains several terms that integrate numerous disciplines important to the field of education. Key concepts and terms are explained in easily-understood language which can in turn be used to assist parents, students, other professionals, and

nonprofessionals when needed. The guide is appropriate to consult whether an individual is studying physiology, psychology, education, current issues, law, special education, or other courses related to the pedagogy of the profession.

Stallsmith, P. (September 2, 1999). Virginia schools face dearth of teachers. Richmond Times-Dispatch, p. A1-A7.

Stallsmith's article reveals that while the Virginia Department of Education does not have any statewide information about the number of teachers needed, officials in the local districts acknowledge that a shortage is brewing. In addressing the factors that might explain the shortage, the article states that student enrollment is up, a push for small class sizes is increasing, the Standards of Learning are contributing to early retirement, and salaries for Virginia teachers fall below the national average.

Theobald, N. (1989). Whether in knowledge or in ignorance: An econometric model of K-12 public school teacher education. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA. (ERIC Document Reproduction Service Number ED 307 688)

This study is helpful in formulating public policies that will favorably influence the retention behavior of K-12 teachers. The article provides a description of the data collected and the implications of the findings. Conclusions suggest that a decision to continue teaching in the same district the following year is negatively related to several school district characteristics, while a "stay decision" is positively correlated to district enrollment. Teacher retention is also positively correlated to district enrollment and with professional characteristics such as an elementary teaching assignment, years of teaching experience, and next year's expected salary.

Veenman, S. (1984). Perceived problems of beginning teachers. Review of Educational Research, 54 (2), 143-178.

Perceived problems of beginning teachers in their first years of teaching are reviewed. The eight problems perceived most often are classroom discipline, motivating students, dealing with individual differences, assessing students' work, relationships with parents, organization of class work, insufficient and/or inadequate teaching materials and supplies, and dealing with problems of individual students. Three frameworks of teacher development are offered in the article that provide conceptualizations of individual differences among beginning teachers. Forms of planned support for beginning teachers are recommended, and suggestions for further research in this area are given.

Wasley, P. (1999). Teaching worth celebrating. Educational Leadership, 56 (8), 8-13.

Wasley explains that by building and using a repertoire of teaching strategies and techniques, both new and experienced teachers are better able to help all students succeed in school. To combat the problems of teacher learning, the author suggests several steps which are a part of a comprehensive agenda for supporting emerging teachers and for extending a range of

professional responsibilities to keep the very best teachers engaged in an interesting, stimulating, growth-oriented profession.

Weil, R. (1997). The view from between a rock and a hard place: a classroom teachers' perspective. Phi Delta Kappan, 78(10), 760-764.

This article offers a classroom teacher's perspective on the trends of lessened parental support and diminishing public support for the public schools. The author makes some recommendations that he thinks will reverse these trends. The author states that one consequence of the public schools' having taken on more of a parental role is that the responsibility for education has gradually shifted from being shared to being borne preponderantly by the schools. Weil contends that schools have accepted more responsibility, yet they have created the ironic situation of becoming almost solely responsible for educating young people. The author explains that many classroom teachers feel the onset of "professional claustrophobia" as they are unable to openly express their ideas for reform.